2-26-99

**PATENT** 

Attorney Docket No.: 007685/PMG/EPIC/JW

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

) Group Art Unit: 2818
) Examiner: unknown at this time )
) TRANSMITTAL LETTER )
<ul> <li>) PATENT COUNSEL</li> <li>) APPLIED MATERIALS, INC.</li> <li>) Legal Affairs Department</li> <li>) P.O. Box 450 A</li> <li>) Santa Clara, CA 95052</li> </ul>

MS Patent Application Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

# INFORMATION DISCLOSURE STATEMENT TRANSMITTAL

Enclosed for the above-identified patent application please find:

- Information Disclosure Statement
- Form PTO-1449
- Copy of 24 reference publications

Respectfully submitted,

Dated: <u>Feb. 25, 2004</u>

Albert J. Dalhuisen Reg. No.: 36,117

I hereby certify that this correspondence is being deposited with the United States Postal Service as express mail in an envelope to: MS Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Express Mail Receipt No. FR 109923739 US

Albert J. Dalheysen



**PATENT** 

Attorney Docket No.: 007685/PMG/EPIC/JW

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applica	tion of:	) Group Art Unit: 2818				
Judon Tony F	PAN	) Examiner: unknown at this time				
Serial No.: 10 Confirmation Filed: 09/02	No.: 4883	) ) ) INFORMATION DISCLOSURE STATEMENT				
For: Bond Pa Integrated Cir	d Techniques For rcuits	) ) )				
MS Patent Ap Commissione P.O. Box 145 Alexandria, V Sir:	er for Patents					
	tion Disclosure Statement					
[X]	is filed within three months after the filing date of a national application or three months after the date of entry of the national stage in an international application or before the mailing date of a first office action on the merits, whichever occurs last. 37 C.F.R. § 1.97(b).					
[]						
[]		of either (a) a final action under § 1.113 or (b) a notice whichever occurs first, but before the payment of the l by				

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__ certification as specified in § 1.97(e) and __ the fee set forth in 37 C.F.R. § 1.17(p)
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Applicant submits herewith patent(s), publication(s), or other information of which applicant is aware, which applicant believes may be material to the examination of this application and in respect of which there may be a duty to disclose. The filing of this information disclosure statement shall not be construed as a representation that a search has been made (37 C.F.R. 1.97(g)), an admission that the information cited is, or considered to be, material to patentability or that no other material information exists. The filing of this information disclosure statement shall not be construed as an admission against interest in any manner. Notice of January 9, 1992, 1135 O.G. 13-25, at 25. Each reference is identified on the attached Form PTO-1449. A copy of each of the references is supplied herewith.

A concise explanation of the items listed on PTO-1449 is:

- [X] not given, since all items are in the English language
- [] given for only some listed non-English language item(s)
- [] given for each listed item, since all are non-English language documents

The following printed publications are referred to in the body of the specification:

U.S. Pat. Application No.: 09/553,461, Filing Date 4/19/02, to Huang et al., Assignee: Applied Materials, Inc. Santa Clara, California

U.S. Pat. No: 6,072,227, to Yau et al., 6/6/00 6,054,379, to Yau et al., 4/25/00

Applicant has become aware of the following printed publications which may be material to the examination of this application:

#### U.S. Patent Application Publication No.:

2002/0096764, to Huang, 7/25/2002 2002/0005292, to Kaneda et al., 1/17/2002 2001/0033031, to Shibata, 10/25/2001 2001/0017221, to Horiuchi et al., 8/30/2001 2001/0013650, to Goetz et al., 8/16/2001

#### U.S. Patent No.:

6,452,271, to Jiang et al., 9/17/2002 6,445,069, to Ling et al., 9/3/2002 6,444,489, to Lin, 9/3/2002 6,424,036, to Okada, 7/23/2002 6,362,090, to Paik et al., 5/26/2002



6,153,940, to Zakel et al., 11/28/2000

5,891,756, to Erickson, 4/6/1999

5,886,877, to Shingai et al., 3/23/1999

5,821,626, to Ouchi et al., 10/13/1998

5,290,732, to Kumar et al., 3/1/1994

5,192,835, to Bull et al., 3/9/1993

5,134,460, to Brady et al., 7/28/1992

4,661,375, to Thomas, 4/28/1987

3,986,255, to Mandal, 10/19/1976

## Other documents:

Charles A. Harper, Ed., <u>Electronic Packaging And Interconnection Handbook</u>, 3<sup>rd</sup> ed., McGraw-Hill, pp.7.87 & 7.88, 2000

George G. Harman et al., "Wire Bonding To Advanced Copper-Low-K Integrated Circuits, the Metal/Dielectric Stacks, and Materials Considerations", To be published in International Microelectronics Symposium (IMAPS), Baltimore, MD, 8 pages, Oct. 9-12, 2001.

Applicant respectfully submits that the invention claimed in the above-identified application is patentable over the references known to applicant and disclosed herein.

Respectfully submitted,

Dated: Feb. 25, 2004

Albert J. Dalhuisen Reg. No.: 36,117 FORM FINAL (Modified) FORM PTO-1449

U.S. Department of Commerce Patent and Trademark Office

007685/PMG/EPIC/JW Attorney Docket No.:

Serial No.: 10/654,240

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use Several Sheets If Necessary)

Applicant Judon Tony PAN:

(37 CFR § 1.98(b))			Filing Date: 09/02/2003		Group: 2818			
				U.S. PATENT DOCUMENT	S			
Examiner Initials		Serial/Patent Number	Issue Date	Applicant/Pa	tentee	Class	Subclass	Filing Date
	AA	U.S. 09/553,461		Huang et al.	<del></del>			4/19/00
	AB_	6,452,271	9/17/02	Jiang et al.		257	750	7/31/98
	AC_	6,445,069	9/3/02	Ling et al.		257	738	1/22/01
•	AD	6,444,489	9/3/02	Lin		438	107	12/15/00
<i>l</i> *	AE	2002/0096764	7/25/02	Huang				1/19/01
	AF	6,424,036	7/23/02	Okada		257	734	9/16/99
	AG	6,362,090	3/26/02	Paik et al.		438	614	11/3/00
	АН	2002/0005292	1/17/02	Kaneda et al.				7/2/01
	AI	2001/0033031	10/25/01	Shibata				3/22/01
	AJ	2001/0017221	8/30/01	Horiuchi et al.				2/24/01
	AK	2001/0013650	8/16/01	Goetz et al.				12/20/00
	AL	6,153,940	11/28/00	Zakel et al.	,	257	779	11/10/95
	AM	6,072,227	6/6/00	Yau et al.		257	642	7/13/98
	AN	6,054,379	4/25/00	Yau et al.	· · · · · · · · · · · · · · · · · · ·	438	623	2/11/98
•	AO	5,891,756	4/6/99	Erickson		438	108	6/27/97
<b>ş</b> l	AP	5,886,877	2/23/99	Shingai et al.		361	768	10/9/96
	AQ	5,821,626	10/13/98	Ouchi et al.		257	778	6/25/96
	AR	5,290,732	3/1/94	Kumar et al.		437	183	6/9/92
	AS	5,192,835	3/9/93	Bull et al.		174	260	10/9/90
	AT	5,134,460	7/28/92	Brady et al.		357	71	11/2/90
	AU _	4,661,375	4/28/87	Thomas		427	89	3/7/86
	AV _	3,986,255	10/19/76	Mandal		29	626	11/29/74

AW Charles A. Harper, Ed., Electronic Packaging And Interconnection Handbook, 3rd ed., McGraw-Hill, New York, pp. 7.87 & 7.88, 2000 AX George G. Harman et al., "Wire Bonding To Advanced Copper-Low-K Integrated Circuits, the Metal/Dielectric Stacks, and Materials Considerations, To be published in International Microelectronics Symposium (IMAPS), Baltimore, MD, 8 pages, Oct. 9-12, 2001 Date Considered: Examiner:

**EXAMINER:** 

Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.